



GROUP	MODEL
CLI	2017-2018MY Forte (YDm), 2019-2023MY Forte (BDm)
NUMBER	DATE
048 (Rev 1, 11/18/2022)	April 2020

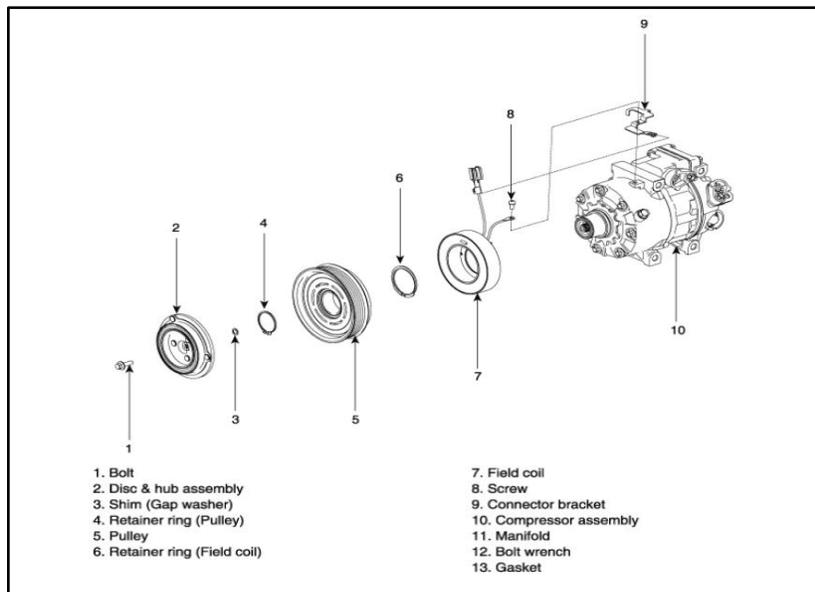
TECHNICAL SERVICE BULLETIN

SUBJECT: **PARTIAL REPAIR: COMPRESSOR FIELD COIL ASSEMBLY INSPECTION AND REPLACEMENT**

NOTICE

This bulletin has been revised to include additional information. New/revised sections of this bulletin are indicated by a black bar in the margin area.

This bulletin provides information regarding A/C Compressor Field Coil Assembly inspection and replacement on some 2017-2018MY Forte (YDm) and 2019-2023MY Forte (BDm) vehicles. Follow the diagnostic procedures in this bulletin to isolate air conditioning compressor faults such as open field coil circuit. Kia has made the Field Coil/Bolt available as a serviceable item.



NOTICE

Replacement of the complete compressor assembly for this concern is not required. Warranty claims submitted for AC compressor replacement, when only the field coil is defective will be subject to chargeback.

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Inspection Procedure: Field Coil Diagnosis (A/C Inoperative)

1. Start the engine. Turn the air conditioning (HVAC) to the 'ON' position.
2. Verify engagement of the compressor clutch. If the clutch is operational, monitor the cycling of the compressor clutch and road test for any intermittent conditions. If the compressor clutch does not engage, verify battery voltage to the field coil circuit or reference [TSB SST040](#).
3. If battery voltage is present to the compressor clutch circuit, check the field coil resistance.

Part Number	Temperature (°F)	Spec (Ω)
97701 F2100	32 - 50	2.0 ~ 4.8
	51.8 - 68	2.2 ~ 4.9
	69.8 - 86	2.3 ~ 5.0
	87.8 - 104	2.4 ~ 5.1
	105.8 - 122	2.5 ~ 5.2
97701 M7000	32 - 50	2.0 ~ 4.8
	51.8 - 68	2.2 ~ 4.9
	69.8 - 86	2.3 ~ 5.0
	87.8 - 104	2.4 ~ 5.1
	105.8 - 122	2.5 ~ 5.2
97701 A5100	32 - 50	2.0 ~ 4.8
	51.8 - 68	2.2 ~ 4.9
	69.8 - 86	2.3 ~ 5.0
	87.8 - 104	2.4 ~ 5.1
	105.8 - 122	2.5 ~ 5.2

4. If the resistance is less / more than the specification, replace the field coil assembly following the service procedure in this bulletin. **Refer to page 3.**
5. If battery voltage is not present, check the A/C fuse for an open circuit, otherwise diagnose the electrical circuit and confirm pressure switch is operational.

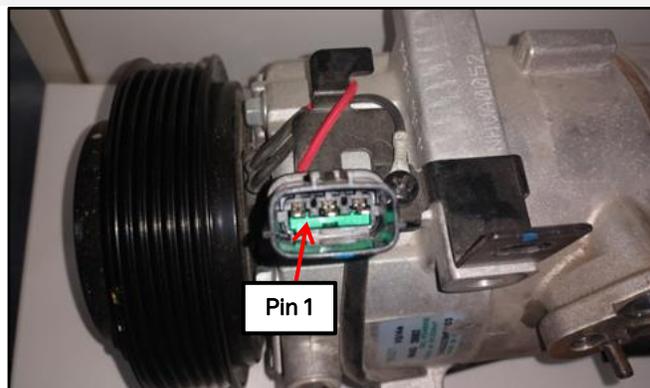


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Field Coil Inspection Procedure:

Using a Multimeter, check the resistance reading on the compressor connector, Pin 1 (left pin).



Note: Images of removed compressor are for reference use only and to provide visibility.

Connect Multimeter as follows:

- Red Lead → Pin 1
- Black Lead → Ground

Note: The sample reading shows that the resistance reading is within specification.

Depending on ambient temperature, and temperature of the field coil, the resistance of the coil can have a small variance. Refer to the table on page 2.



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Repair Procedure:

1. Lift vehicle on hoist and remove the engine undercover.



2. Loosen the drive belt by referring to "Maintenance → Power Train → Drive Belt → Repair procedures" in the applicable Shop Manual on KGIS.



3. Use the Disc/Hub Remover SST 09977 29000 and remove the retaining bolt.



Tightening torque for Bolt:
7.2 - 10.8 lb.ft (9.7 - 14.6 N.m)



- 4a. Remove the spacer shim, located between the disc + hub and compressor shaft, if equipped.

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- 4b. Remove the pulley assembly, retainer, and snap ring.

NOTICE

Do not misplace the shim. This is a select fit item and will be reused during assembly.



- 5a. Remove the pulley assembly.

- 5b. Remove the field coil retaining snap ring.



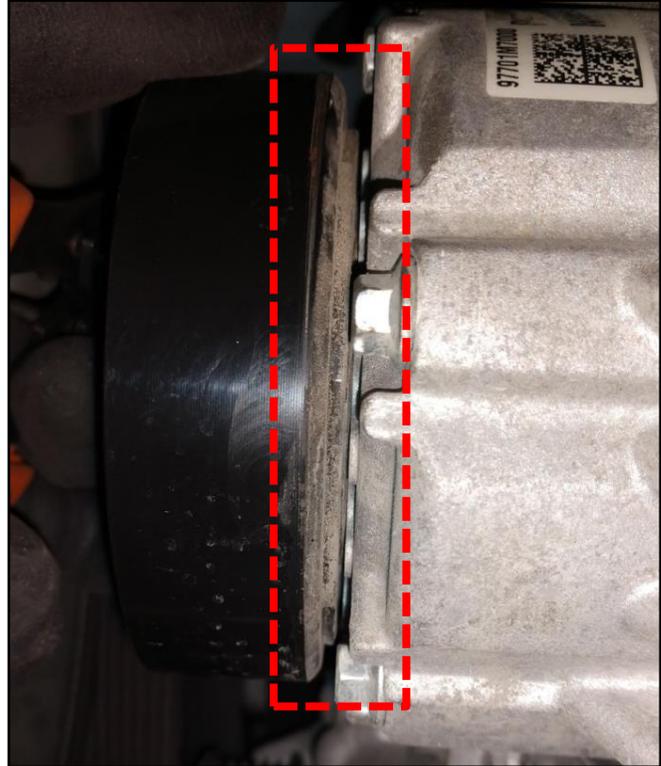
6. Unfasten the ground bolt for the field coil, and then remove the field coil.



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- 7. Install the new field coil on the compressor assembly. Be sure to align the groove in the field coil to the compressor housing mating mark and install the field coil snap ring.

NOTICE
Ensure that during the installation of the field coil and ground bolt, the field coil is seated completely around the circumference of the compressor housing.



- 8. Install the pulley assembly and the pulley retainer snap ring.

NOTICE
Ensure that the snap ring is fully inserted and seated.



- 9. Reinstall the spacer shim(s) and disc + hub to the compressor using a new bolt.

 **Tightening torque for Bolt:**
7.2 - 10.8 lb.ft (9.7 - 14.6 N.m)

- 10. Verify proper operation of HVAC system.



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AFFECTED VEHICLE RANGE:

Model	Production Date Range
Forte (YDm)	2017 - 2018MY
Forte (BDm)	2019 - 2023MY

REQUIRED TOOL:

Tool Name	SST P/N	Figure	Comments
AC Compressor Clutch Disc and Hub Remover	09977 29000		Located in Drawer 8

REQUIRED PART:

Model	Part Name	Part Number	Figure	Qty.
17-18MY YDm	Field Coil	97641 3X100		1
19-23MY BDm		97641 M7000		1
17-18MY YDm	Bolt	97647 33300		1
19-23MY BDm		97647 F6000		1

WARRANTY INFORMATION:

N Code: I11 C Code: ZZ3

Model	Claim Type	Causal P/N	Qty.	Repair Description	Labor Op Code	Op Time	Replacement P/N	Qty.
17-18MY YDm	W	97641 3X100	1	Compressor Field Coil Replacement	97707ROA	0.7 M/H	97647 33300	1
19-23MY BDm		97641 M7000	1			0.5 M/H	97647 F6000	1

